

## INSECT CONTROL ON SWINE – 2019

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This publication contains only a portion of the important information included on pesticide labels. Always read the product label carefully before buying and using any pesticide. Products listed in bold are **Restricted Use** insecticides. Products listed in *italics* are approved for organic production.

Insecticides have been placed into numbered Insecticide Mode of Action groups (MOA) based on how they work against insects. Continual use of products from a single group against a pest species can lead to reduced control (resistance) by all products in the group. To minimize control failures due to insecticide resistance, do not apply insecticides within the same group repeatedly, even when using different application methods (baits, residual sprays, knockdown sprays, etc.). Rotate among groups.

### Animal Applications to Control External Parasites: Lice and Biting Flies

Lice live on jowls, legs, inside the ears, and on the underside of the body. Treat these areas thoroughly with a coarse spray. A second treatment may be necessary to kill newly hatched lice. Check the product label for the minimum retreatment interval. Bedding treatments may be needed to control severe infestations.

#### Sprays

Active Ingredients	MOA Group	Days to Slaughter	Brand Names	Notes
coumaphos	1B	0	Co-Ral Fly and Tick Spray 6.15%	10 day re-treat
phosmet	1B	1	Prolate/Lintox - HD 11.75% EC	14 day re-treat
tetrachlorvinphos	1B	0	Rabon 50% WP	1-2 qts. of spray/animal
permethrin	3A	5	Atroban EC, Eciban WDL, GardStar, SwineGard, etc.	14 day retreat
<i>pyrethrins</i>	3A	0	<i>PyGanic 5% EC</i>	<i>10 re-treat</i>

#### Dusts

Active Ingredients	MOA Group	Days to Slaughter	Brand Names	Notes
coumaphos	1B	0	Co-Ral Livestock Dust 1%	Repeat as necessary, 10 day retreat
permethrin	3A	5	Gordon's Dairy & Livestock Dust 0.25%, etc.	10 day retreat
<i>pyrethrins</i>	3A	0	<i>PyGanic 1% Dust</i>	10 day retreat

#### Pour-Ons

Active Ingredients	MOA Group	Days to Slaughter	Brand Names	Notes
Permethrin	3A	5	SwineGuard 10%	14 day retreat

**Wound Treatment** Catron IV (permethrin) can be used on swine to protect wounds from flies and maggots.

### Mange Mites

Effective control of mange mites requires sound management practices along with proper selection and application of insecticides. Mites are spread by direct contact among animals within the herd. New animals added to the herd should be treated before coming in contact with other animals. Pens should be thoroughly cleaned and disinfected before introducing uninfested animals. Since mange can spread rapidly among new-born pigs, it is a good practice to treat boars before the breeding

season and sows before farrowing. If an outbreak of lice or mange does occur in a herd, the entire herd should be treated.

Sprays should be applied with equipment large enough to thoroughly wet the animals. A second treatment, 2 weeks after the first, may be needed to control newly emerged lice or mites. Sprays should be applied on a warm, sunny day so animals will dry rapidly. Follow label precautions against simultaneous use of these products with medications for internal parasite control.

#### Sprays – Mites and Sucking lice

Active Ingredients	MOA Group	Brand Names	Pre-slaughter Interval
phosmet	1B	Prolate Lintox-HD 11.75% EC	1 day; 14 day retreat
permethrin	3A	Atroban 11% EC, Permethrin II, SwineGuard	5 days; 14 day retreat

#### Injectable – Mites and Sucking lice

Active Ingredients	MOA Group	Brand Names	Pre-slaughter Interval
doramectin	6	Dectomax 1%	35 days
ivomectin	6	Ivomec 1%	18 days

#### Fly Control in and around Swine Facilities

Effective and on-going sanitation and manure management programs are essential to maintaining fly populations at low levels. Manure, spilled feed, and wet bedding straw should be removed twice a weekly in order to interrupt the fly breeding cycle of flies. Manure should either be spread onto fields to dry or placed in lagoons to liquefy. Insecticides may be applied as residual sprays, non-residual knockdown or contact sprays, baits, or feed additives will provide only temporary relief unless breeding sites are eliminated. Always read and follow label directions.

#### Residual Fly Sprays

Insecticides may be applied as residual surface sprays, non-residual space sprays, baits, manure sprays, or feed additives. Always read and follow label instructions before applying insecticides for fly control. Treat walls, ceilings, posts, and other fly resting sites. Spray these areas thoroughly and to the point of runoff. In order to minimize control failures due to insecticide resistance, do not apply products containing the same active ingredient, or insecticides from the same chemical class, repeatedly throughout an entire season. See product labels for use rates. Rotation of pyrethroid and organophosphate insecticides can reduce the potential for development of resistance.

#### Residual Fly Sprays

Active Ingredients	MOA Group	Brand Names
diazinon	1B	Dryzon 50% WP
stirofos	1B	Rabon 50% WP
stirofos + vapon	1B	Ravap EC
chlorpyrifos	1B	Durashield CS
bifenthrin	3A	ActiShield Insecticide 7.9%
cyfluthrin	3A	Optashield CS 6%, Tempo SC 11.8%
deltamethrin	3A	Annihilator Premise Spray 0.02%
<i>lambda</i> -cyhalothrin	3A	Grenade 10% WP
permethrin	3A	Atroban 25% WP or 11% EC, Gardstar, 10% Prozap Insectrin, Permethrin II 10% or 25% WP
spinosad	5	Elector 2.46%

Do not contaminate food, water or utensils with spray. Do not treat animals directly. One gallon of spray treats 500-1,000 square feet, depending on the type of surface (See label directions). Apply to walls, ceilings and other fly resting sites. Alternate applications of pyrethroid insecticides and organophosphates. Residual fly spray materials listed above provide control for 1-7 weeks depending on fly infestation, weather, and surfaces treated.

**Fly Traps** Large numbers of flies can be caught in baited fly traps but the traps may not do not cause any significant reduction in total fly numbers. In addition, this approach does not thing to eliminate fly breeding sites. Electrocuting light traps may reduce house fly and stable fly numbers in closed buildings.

**Contact sprays, fogs, or spaces sprays** provide rapid but short-term control of flies present during treatment. Repeat as needed. Do not contaminate feed or water. Animals may be present during application but do not apply space sprays directly to livestock. In order to minimize control failures due to insecticide resistance, do not apply the same insecticide, or insecticide within the same chemical class (particularly pyrethroids), repeatedly throughout an entire season. It is best to alternate applications of pyrethroids (permethrin, pyrethrins) with organophosphates (dichlorvos) to reduce the potential for insecticide resistance. See the label for use rates.

**Contact sprays**

Active Ingredient	MOA Group	Brand Names
dichlorvos	1B	Vapona Feedlot Spray 43.2% EC, Vapona Insecticide Dairy Cattle Spray (1%)
permethrin	3A	Permethrin II (10%)
pyrethrins	3A	Evergreen Pyrethrum Concentrate, PyGanic Specialty

**Fly baits** can be scattered where house flies congregate to provide some temporary reduction in numbers. Never use baits where cattle or other domestic livestock can eat them. Place baits in areas where flies congregate, such as window sills or doorways. Baits alone will not control fly populations. They should be used along with sanitation and other insecticidal methods (e.g., residual and space sprays).

**Fly Baits**

Active Ingredient	MOA Group	Brand Name
methomyl	1A	Apache, Fatal Attraction, Golden Malrin Fly Bait Plus, Tailspin
trichlorfon	1B	Dipterex
dinotofuran	4	QuickStrike 1% Strip
imidacloprid	4	QuickBait 0.5%
spinosad	5	Elector Bait 0.5%
cyantraniliprole	28	Zyrox Fly Granular Bait

\*See label for application instructions and limitations

**Feed Additive** - Rabon 7.76% Premix may be used as a feed additive for fly control. See the label for rates.

**Manure sprays** kill fly larvae that are developing in treated areas. They are recommended where manure cannot be removed on a 7 to 10 day schedule. Apply at a rate of approximately 1 gal/100 sq. ft. to kill maggots. Do not spread treated manure onto crops not listed on the insecticide label. Apply sprays at rates that wet the manure surface, it is not necessary to soak the manure. Repeat treatments as necessary but no more often than every 7 days. Rates to use in per 25 gallons of water include: 1 qt Larvadex 5% SC (cyromazine); 4 lbs Rabon 50% WP or 1 gal 24% EC; 1 gal Ravap 28.7% EC, or 1qt Vapona Concentrate.

**Fly Parasite Release Programs**

Several commercial firms offer a fly parasite release program that can be used to supplement fly control around concentrated livestock operations. These small wasp parasites attack house flies or stable flies. The benefits of parasite release programs in livestock operations have not yet been proven. Several parasite species are available. *Spalangia nigroaenea* attacks house flies and stable flies in feedlots. Parasites in the genus *Muscidifurax* attack house flies while those in the genus *Spalangia* attack stable flies. Do not buy blends of unknown species and do not buy shipments of *Nasonia vitripennis*, a species that has been ineffective in Midwestern feed lots. See ENTFACT 502- "Biological Control of Flies".

**Cockroaches**

German and Oriental cockroaches can thrive in swine production facilities where there is an abundance of animal feed and manure, as well as the moisture that they need. Cockroaches present an animal health threat because they can carry mycotoxins, bacteria, and viruses on their bodies as they move between buildings on a site. Cockroach management includes the use of residual insecticide sprays and bait formulations.

Active ingredient	MOA Group	Brand Names	Comments
chlorpyrifos	1B	Durashield 20 CS	Restricted Use Pesticide – Do not apply when animals are present.
cyfluthrin	3A	Tempo 20 WP or 2L	
pyriproxyfen	7	Pyri-Shield 1.3 EC	Insect growth regulator – use in tank mixes with other insecticides for control of adult insects.

